

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.

8



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/997,062	11/29/2001	Evelyn Duesterwald	10011516-1	4786

22879 7590 08/13/2004

HEWLETT PACKARD COMPANY
P O BOX 272400, 3404 E. HARMONY ROAD
INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER

CURCIO, JAMES A F


ART UNIT	PAPER NUMBER
----------	--------------

2122

DATE MAILED: 08/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

8

Office Action Summary	Application No.	Applicant(s)	
	09/997,062	DUESTERWALD ET AL. 	
	Examiner	Art Unit	
	James Curcio	2122	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>06/05/02 03/26/04</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-22 of application 09/997062 are pending.

Specification

1. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

The abstract of the disclosure is objected to because it does not include the aspects of the invention that are new in the art. Correction is required. See MPEP § 608.01(b).

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claim 7 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. "Dynamic execution layer interface" is not an art-recognized term and the meaning of this term is not particularly pointed out or distinctly defined in either the specification or the claims. Therefore, claim 7 is vague and indefinite. The remainder of this office action interprets the "dynamic execution layer interface" broadly to be an "interface".

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 1-22 are rejected under 35 U.S.C. 102(a) as being anticipated by Donohue (US006202207B1).

6. As per claim 1, Donohue discloses steps for the following:

Intercepting program instructions (abstract; Fig. 4A – elements 410, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, and associated text (emphasis added); col. 4:5 to col. 7:30),

Determining if a program instruction is to be replaced (abstract; Fig. 4A – elements 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, and associated text (emphasis added); Fig. 4B – element 290 and associated text; col. 4:5 to col. 7:30), and

Dynamically replacing the program instruction with a replacement instruction (abstract; Fig. 4B – elements 300, 320, 330, 340, 350, 360, 310, 380, 390, and associated text (emphasis added); col. 4:5 to col. 7:30).

7. As per claims 10 and 14, Donohue discloses a system and computer-readable medium comprising means and logic for the following steps:

Gaining control over execution of a program (abstract; Fig. 3 – elements 10, 80, 50, 50', and associated text (emphasis added); Fig. 4A – elements 410, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, and associated text (emphasis added); col. 4:5 to col. 7:30);

Intercepting program instructions (see rejection of claim 1; Fig. 3 – elements 10, 80, 50, 50', and associated text (emphasis added));

Determining if a program instruction is to be replaced (see rejection of claim 1; Fig. 3 – elements 10, 80, 50, 50', and associated text (emphasis added)); and

Replacing the program instruction with a replacement instruction (see rejection of claim 1; Fig. 3 – elements 10, 80, 50, 50', and associated text (emphasis added)).

8. As per claim 18, Donohue discloses the following steps:

Gaining control over the execution of a program (see rejection of claims 10 and 14);

Intercepting program instructions (see rejection of claim 1);

Determining whether the program instructions have been cached and, if so, executing the cached instructions (abstract; Fig. 4A – elements 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, and associated text; Fig. 4B – elements 290, 310, 380, 390, and associated text (emphasis added); col. 4:5 to col. 7:30);

If the program instructions have not been cached, determining if the program instructions are to be replaced (see rejection of claim 1);

Dynamically replacing the program instructions with replacement instructions if it is determined that the program instructions are to be replaced (see rejection of claim 1).

9. As per claims 2, 11, 15, and 19, Donohue discloses that dynamically replacing the program instruction comprises fetching a replacement instruction and storing it in a code cache (abstract; Fig. 3 – elements 10, 80, 50, 50', and associated text (emphasis added); Fig. 4B – elements 300, 320, 330, 340, 350, 360, 310, 380, 390, and associated text (emphasis added); col. 4:5 to col. 7:30).

10. As per claims 3 and 20, Donohue discloses that dynamically replacing the program instruction further comprises executing the replacement instruction in lieu of

the program instruction each time a function associated with the program instruction is required (abstract; Fig. 3 – elements 10, 80, 50, 50', and associated text; Fig. 4A – element 410 and associated text; col. 4:5 to col. 7:30 (emphasis added)).

11. As per claims 4 and 21, Donohue discloses that the replacement instruction comprises part of a patch that is made available via an application programming interface (Fig. 3 – elements 10, 80, 50, 50', and associated text; col. 4:5 to col. 7:30 (emphasis added)).

12. As per claims 5, 12, and 16, Donohue discloses the step of, prior to determining if a program instruction is to be replaced, determining if the program instruction has been cached (abstract; Fig. 3 – elements 10, 80, 50, 50', and associated text; Fig. 4A – elements 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, and associated text; Fig. 4B – elements 290, 310, 380, 390, and associated text (emphasis added); col. 4:5 to col. 7:30).

13. As per claim 6, Donohue discloses the step of executing the cached instruction in lieu of the program instruction if an associated instruction has been cached (abstract; Fig. 3 – elements 10, 80, 50, 50', and associated text; Fig. 4A – elements 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, and associated text; Fig. 4B – elements 290, 310, 380, 390, and associated text (emphasis added); col. 4:5 to col. 7:30).

Art Unit: 2122

14. As per claim 7, Donohue discloses the step of, prior to intercepting program instructions, gaining control over execution of program instructions by injecting a dynamic execution layer interface into the program (abstract; Fig. 3 – elements 10, 80, 50, 50', and associated text; Fig. 4A – elements 410, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, and associated text; col. 4:5 to col. 7:30 (emphasis added)).

15. As per claims 8, 13, and 17, Donohue discloses the step of dynamically receiving information about program instructions to be replaced and replacement instructions to replace instructions (abstract; Fig. 3 – elements 10, 80, 50, 50', and associated text; Fig. 4A – elements 410, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, and associated text; Fig. 4B – elements 290, 300, 320, 330, 340, 350, 360, 310, and associated text; col. 4:5 to col. 7:30 (emphasis added)).

16. As per claims 9 and 22, Donohue discloses the step of executing transition code if a program instruction to be replaced is currently running (abstract; Fig. 3 – elements 10, 80, 50, 50', and associated text; Fig. 4A – elements 410, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, and associated text; Fig. 4B – elements 290, 300, 320, 330, 340, 350, 360, 310, and associated text; col. 4:5 to col. 7:30 (emphasis added)).

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Art Unit: 2122

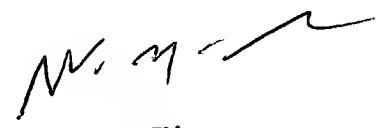
18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Curcio whose telephone number is 703-305-8887. The examiner can normally be reached on Tuesday through Friday from 7 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Dam, can be reached on Tuesday through Friday from 7:30 am to 4:30 pm and on alternate Mondays from 7:30 am to 4:30 pm. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

20

8/9/04
JC
AU 2122


WEI Y. ZHEN
PRIMARY EXAMINER